

A STUDY ON COLLECTIVE IMMERSION AND COSMIC SUBLIME: AN ANALYSIS ON TEAMLAB PLANETS EXHIBITION & OLAFUR ELIASSON'S 'THE WEATHER PROJECT'

Nurul Hanim Hussein Shah,

Visual Art and Cultural Studies, Faculty of Creative Arts,
University of Malaya, Kuala Lumpur, Malaysia
17218690@siswa.um.edu.my

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Abstract

This paper will focus on the different ideas surrounding light installations at TeamLab: Planets in Japan and Olafur Eliasson's "The Weather Project" through curatorial writings and phenomenological analysis of the artworks. Therefore, the purpose of the thesis is to determine the impact of light installations on audiences by examining an international art collective founded in Tokyo called TeamLab, well-known for their expansive installations that engage viewers in an immersive and interactive world through the use of digital projection, sound, and interactive technology and a well-known light installation by Olafur Eliasson that was displayed in 2003 in the Turbine Hall at Tate Modern, London. Despite having various curatorial writings and researches, my thesis will be focusing on analysing few of the light installations at Teamlab: Planets' exhibition and also one of Eliasson's older but still well-known piece of art, The Weather Project. Observations are achieved by going through curatorial writing and also audiences' responses in social media such as Facebook, Instagram & Twitter to understand the different views that are being perceived on the artworks. My overall approach is to fully understand the effects of the light installations' surroundings on audience, as well as the various contexts that arise within the distribution process through contextual analysis. Furthermore, this study aims to show that light installations can be exhibited and understood in a variety of ways, such as establishing a sense of unity among viewers and conveying a spiritual experience through the use of light and nature as a concept.

Keywords: TeamLab: Planets, light installations, interactive installation, impacts, experience.

Introduction

Art can come in different forms to have an engagement with society. An example would be the work of Olafur Eliasson, where the elements that allow him to persuade his audience to view his works are through the use of light and color in his installations. Based on a review of Olafur Eliasson's piece, *Your House*, Julie L. Mellby (2007) believes that Eliasson creates art that allows the audience to feel as if they are part of the piece. Additionally, she implies that by using the method for creating a 'Hole Book', the work takes on a 3-dimensional appearance that provides a sense of reality to the viewer. She explains how the hole book helps the audience feel as if they are entering a new reality as a result of the work, in a way that the artist wanted the audience to be fully involved because the audience is the one experiencing everything the work has to offer.

However, art can be perceived in many ways, in which the audience understands the artwork as intended by the artist, or the audience can agree with the artwork and also disagree with some points of the artwork, or there can be an audience who opposes the idea of the artwork (Hall, 2006). The article "Architecture as an Art of Understanding" by Małgorzata Mizia (2014) proves that to be able to engage with an artwork in any form is to be able to interpret it using the knowledge that is already ingrained in us. An architect's role is similar to that of an artist or sculptor in that they conceive their idea of an element and translate it into an artwork, which is then created and displayed in front of a public audience, where it can be interpreted and experienced.



Figure 1: Olafur Eliasson – The Weather Project, 2003, Turbine Hall, Tate Modern, London.

Source: <https://publicdelivery.org/olafur-eliasson-the-weather-project/>

A well-known light installation displayed at the Tate Modern in 2003 by Olafur Eliasson emphasizes similar qualities of James Turrell, in which he used light and space in his works to draw the audience's attention. In the beginning, Eliasson displays his artwork in a way that imitates the actual subject, which in this case is nature. In "The Weather Project", Eliasson built an installation that resembles the sun, and he then creates his atmosphere by producing a fine mist that surrounds the audience. In Olafur Eliasson's installations, the location and space play a significant role in how audiences experience and interpret the work. It is critical to note that the physical characteristics of the venue, such as its size, shape, and lighting, as well as the

cultural and geographical context, influence the audience's reactions and interactions (Bishop, 1999).

In addition to elevating expectations and engagement, renowned institutions like the Tate Modern can further influence audience perceptions with curatorial decisions regarding placement and presentation (Foster, 2003). "The Weather Project" was showcased at the Tate Modern due to its prestigious reputation, spacious Turbine Hall, and diverse international audience, which created a grand, immersive atmosphere (Heiser, 2003). Adding immersive elements to the space can enhance the experience, making it more meaningful and engaging (Grau, 2004). Understanding these factors facilitates a deeper understanding of how the environment influences the sensory, emotional, and cognitive responses of audiences to artwork, highlighting the role that institutional frameworks play in the engagement and reception of artwork. Olafur Eliasson describes art as a platform that can make a better future through creating awareness of environmental issues. Eliasson has proved this statement through 'The Weather Project' installation where the audience is seen to be engaging with the works as if they were in a natural environment, instead of an artificial one (Liinamaa, n.d.). According to an interview with Artspace (2018), described Eliasson's work as an engagement for [...both intentional viewers and society at large in artworks that consider climate change, sustainability, nature, weather, geometry and physics, motion, sense of self, and bodily experience]. In other words, Eliasson's work could be described as 'Ecological Art' involves raising awareness on environmental issues.

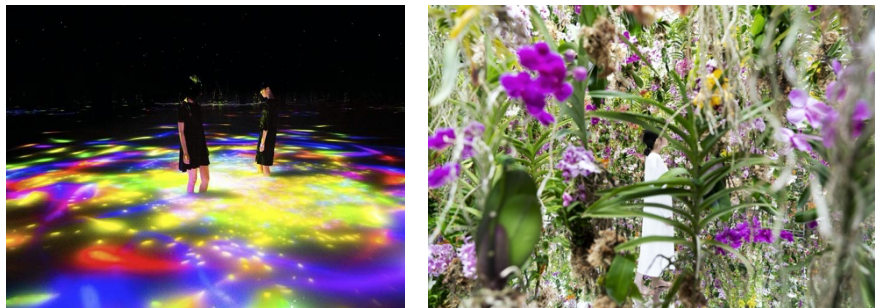


Figure 2: TeamLab Planets exhibition
Source: <https://planets.teamlab.art/tokyo/>

On the other hand, TeamLab's effort in creating new connections and relationships between the viewers and nature through technology has encouraged viewers to experience nature more artistically and digitally which is a "unique art experience" for them. Thus, this leads to how Olafur Eliasson's "The Weather Project" and TeamLab: Planets have become my key examples of how their light installations have become a significant contribution to the contemporary art scene. Therefore, this research is to determine how TeamLab: Planets light installations and 'The Weather Project' by Olafur Eliasson impact the audience as these installations allow the audience to interact and feel immersed, comparing and contrasting two different works that display light installations by identifying the similarities and differences between them in terms

of how they convey their messages, and to gain a better understanding on both Olafur Eliasson's and TeamLab's light installations through curatorial writings. Olafur Eliasson's *The Weather Project* was exhibited in the Turbine Hall of the Tate Modern in 2003, yet its influence has persisted as viewers continue to comment on this particular piece of art to this day. Eliasson has since evolved his technique to a more modern approach, where his artworks are seen focused more on geometrical lines and shapes. Whereas 'The Weather Project' contributes to the use of color, vision, and shifting ambient conditions (Cercle Magazine, 2018).

On the other hand, TeamLab: Planets is a current installation by the TeamLab collective in Japan that is constantly encouraged to be visited by viewers due to its breathtaking lighting and interactive elements. Unlike Eliasson's large-scale sculpture, TeamLab's light installations are more digitally interactive. The collective combines the use of digital projection and elements that can alter the environment through the audience's movement. Both installations however highlight the importance of the human body within the artwork, such that audiences need to be in the artwork for them to be able to understand the artwork on a deeper level. The only difference is that TeamLab encourages the interaction between the audience and the artwork such that their interactions are able to alter the environment through sensors or by touching. TeamLab: Planets was due to be closed by the end of 2023, however, it has recently been announced on their website that because of the outpouring of support they have received on the exhibition, the interactive exhibition is now open until the end of 2027.

There are various curatorial writings and interviews on how TeamLab is generally focused on how they have achieved a "borderless" environment through their interactive digital works as audiences are constantly seeking out multi-sensory encounters that allow them to temporarily escape from their current reality and enter a world that feels surreal (Xu, 2020). This is seen in multiple image and video posts within the social media platform on TeamLab's light installation where audiences are enjoying their interaction with the exhibition. Furthermore, most writing on Eliasson also suggests how Eliasson's art has successfully produced a sensory experience for his audience in which has allowed the audience to interpret the piece based on their understanding (Molesworth, 2008). However, there are not many studies explaining how these light installations have been able to provide an understanding of how it has impacted their audience on a deeper level. As a person who admires art within the social media platform, as most of these light installations are out of reach and time, it is impossible for us to have an absolute understanding of these works other than from curatorial writings and responses given by viewers who have seen these light installations first-hand.

Therefore, this paper addresses that gap by examining TeamLab: Planets and Eliasson's "The Weather Project" through visual analysis, curatorial discourse, and audience responses, including social media posts. Light, in this context, becomes more than a visual element—it serves as a medium that stimulates emotional response and invites collective immersion. By comparing how both installations simulate natural phenomena to evoke a sense of the cosmic sublime, the research explores how light can serve as a vehicle for spiritual and emotional resonance. Moreover, this paper focuses on the ways both works convey meaning through light, the elements that foster collective immersion, and the impact of natural simulation on the audience's emotional and spiritual experience. Ultimately, this research contributes to broader discussions in contemporary media art by showing how light installations function not only as

visual spectacles but also as affective environments that shape audience experience, consciousness, and connection.

Light as Language: A Comparative Study of TeamLab: Planets and Eliasson's The Weather Project

According to Spiegl (2000), suggests that Olafur Eliasson's work is an imitation of reality, thus what makes Eliasson's work different from reality is that it is promoting another existence of the current reality, which is what reality should look like. Conversely, it is determined that this reality doesn't exist except in the audience's memory. Moreover, it is therefore clear that through the analysis of the visual elements that are found in Eliasson's work does display romanticism in a way that Eliasson visualizes his subject into something beautiful, which is also seen through his construction of each title of his artworks which are usually literal to his artworks (Sandquist, 2000).

Eliasson's work studies ontology which is in the creation of how things happen, thus exploring his ideas of these studies through the use of materials that allows creating a similar natural effect such as the sun. Furthermore, Molesworth (2008) implies how Eliasson's work has effectively created a phenomenology experience in a way that his works provide the audience their interpretation of the work. Therefore, through the use of light, Eliasson was able to captivate his audience by activating the bodily experience through their senses. Past research describes TeamLab as a "borderless" reality such that Muxuan Hua (2021) argues that spatial interaction between installation artworks and the audience can be served as psychological borders in immersive art, in a way that there are no boundaries in viewing the artwork. The term "borderless" is crucial within an immersive installation such that audiences are encouraged to enter the TeamLab reality with an open-mind, hence allowing the audience to perceive a new reality that is meaningful to them. In the other hand, researchers describe the purpose of TeamLab's exhibition as understanding the world in a new light. TeamLab exhibitions go beyond the limitations on how people view the world, and how they relate to it and to ourselves, and how time continues to move forward (T. Rose, 2012). However, there are arguments regarding the distribution process of TeamLab's exhibitions such as professional audiences that are sophisticated regarding their view on art highlighting the lack of context within the installations and how the exhibitions are shown only for their beauty (Liu, 2019).

Despite the previous argument, TeamLab has continued to thrive and became a successful business within the art industry in encouraging a multi-sensory experience for audiences (Xu, 2020). This is achieved through the use of various resources such as light, water, and physical objects that allows the audience to engage with the installation and transport themselves into a new reality. Additionally, Wendy Haslem (2020) highlights how TeamLab could also provide a shared sense of the fragility of the external, natural ecology, which is focused on the recurring context of climatic emergencies that is present in the ecologies within

the installations. According to an article by The Archive (n.d.), explains TeamLab's approach on art and technology and how it is represented in their Planets exhibition. TeamLab suggests that rather than focusing on a certain desired result, their goal is to create a unique experience. They are therefore capable of understanding the various perspectives on what the world is like for various people as a result of such experience. Moreover, TeamLab implies that unlike social media platforms such as Facebook which is intended for individual use. TeamLab's goal is to use digital art to improve the actual physical place. Generally, the exhibition does not rely on one person's understanding, however it can be someone else or a loosely related group of individuals. Therefore, TeamLab believes that by fusing digital technology with art and creating an immersive environment where audience are able to interact, along with the presence of audience within the space can produce a more positive understanding towards the exhibition. In the other hand, TeamLab also explains how the exhibition intends to understand the current society's perception of 'beauty' as they believe that "[...art is an act of modern people creating their own flowers and expanding the notion of "beautiful" with those flowers, just in the way that ancient human beings saw flowers as "beautiful" and expanded the idea of beauty." (The Archive, n.d.)

Experiencing The Cosmos/Nature Together: Collective Immersion In The Art Of Teamlab's Planets (2015-2018) And Olafur Eliasson's Weather Project (2003)

TeamLab is known for their immersive installation in Japan where audience are taken into a journey of exploring that involves walking around different rooms that uses light and sound as an important feature of their installations, one of which is TeamLab: Planets. The difference between TeamLab Borderless and TeamLab Planets are the experience audiences go through within the exhibition. Based on the name of their exhibition, TeamLab Borderless is more to discovering an environment without boundaries. Whereas TeamLab Planets encourages more of a sensory experience where audience are asked to take off their shoes and emerge themselves in water. Unlike TeamLab Borderless which includes exhibits that displays futuristic concepts, TeamLab Planets promotes their exhibits as "Become One with the World", highlighting their focus towards the nature and cosmos of our surrounding.

TeamLab: Planets has three main spaces which are the Public Area, the Water Area and the Garden Area, in which each have a unique characteristic of their own. However, in this paper I will be focusing on one of the areas



Figure 3: Drawing on the Water Surface Created by the Dance of Koi and People - Infinity, TeamLab,, 2016-2018. Source: https://planets.teamlab.art/tokyo/ew/koi_and_people/

‘Drawing on the Water Surface Created by the Dance of Koi and People - Infinity One’ by TeamLab collective is an interactive digital installation. The artwork is done within the year of 2016 to 2018 and is still on display until the end of 2023 in TeamLab: Planets in Japan. According to the collective’s website, the artwork is programmed to provide a simulation in real-time where audience are a vital component within the artwork such that the koi fish is affected by the movements of the audience as they walk inside the water and collide amongst the koi fishes. The artwork is a two-dimensional digital work that uses light to project the images of the koi fishes inside the knee-calves height water. It can also be seen as a three-dimensional work as it is done inside a room filled with water that activates audience’s sensory system as they are walking inside the water. The work includes a large amount of digitally-formed colourful koi fishes inside a room filled with water and surrounded by mirrors to look as if audience are inside an endless room of koi pond. Referring to a video of the artwork, the fish will transform into flowers and disperse when it comes in contact with the audience. The colours of the koi fish glows and gives out a contrast within the dark room. Throughout the year, the colour of the fishes and the flower changes following the season. An example would be the seasonal flowers – sunflower and cherry blossom. Both season seemed to have only one colour where it represents each flower, moreover turning the fishes into the seasonal flower when collided or touched by the audience.



 <p>Winter</p>	 <p>Seasonal Flower – Cherry Blossom</p>	 <p>Spring</p>
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Table 1: Images of different seasons interpreted within the ‘Drawing on the Water Surface Created by the Dance of Koi and People – Infinity’ exhibition.

As these digitally-programmed fishes are rendered in real time, it does not repeat its movement and creates new movements throughout every audiences’ interaction. Audience are encouraged to take off their shoes and deep their legs inside the water to be able to interact with the fishes. The mirror surrounding the entire room creates a balanced symmetrical through the reflection of the room, producing a setting that seemingly fades into a dark void. TeamLab’s use of immersive digital art and colours creates unity and variety within the artwork. TeamLab’s use of immersive digital art creates unity in the artwork in a way that it allows audience to feel connected with the artwork as the installation relies on audience’s participation to react. In the other hand, the contrast between the bright warm and cold colours within the dark void creates variety in the artwork. The audience also create a sense of variety such that originally humans are not a part of the fish pond, however TeamLab has created an installation where audience can feel connected with nature. TeamLab’s use of nature as a main subject of the artwork – koi fish and flowers, explains the main goal of their installation where they wanted to create a reality where audience can immerse themselves in the artwork and feel as if they are connected with other living things in nature. The installation emphasizes on the use of colour on the fishes creating a strong bond of connection with the audience as they felt attracted to interact with the colourful beings. As described in the analysis of the TeamLab: Planets throughout this chapter, with four exhibition spaces showcasing seven distinct large-scale artworks in which teamLab refers to as "body-immersive" works, Planets is an intensely tactile experience. The concept is predicated on the notion that "once the boundary between the body and the artwork dissolves, the boundaries between the self, others, and the world become something continuous," according to TeamLab. As Merleau-Ponty claims the importance of body as a means of expression, in a way that we go astray when we imagine ourselves as disembodied minds (Ponty, 1945). Moreover, the significance of audience participation is made evident by online postings, which show videos and pictures of the audience as part of the installation, with additional visitors captured in the background within the "natural phenomenon." In terms of audience’s perception of the installations, audience recounts the experience as they see it rather than speculating on the meaning behind these artworks, demonstrating the accuracy of Merleau-Ponty's claims that the body is an essential tool in perceiving a given phenomenon.

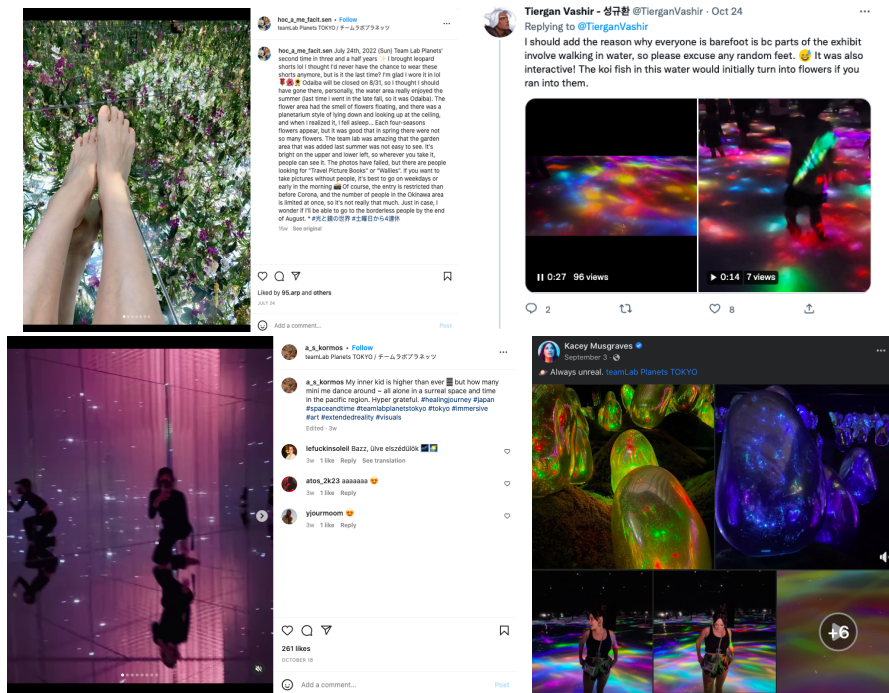


Figure 4: Screenshots of postings made by social media users on TeamLab: Planets' light installation. Source: Facebook, Twitter & Instagram.

In examining the immersive experiences offered by TeamLab's Planets and Olafur Eliasson's Weather Project, it is essential to analyze how audience members perceive and construct meaning from these installations. According to phenomenological concepts, embodiment, perception, and the construction of meaning play crucial roles in understanding these immersive art experiences. Embodiment is a key concept in phenomenology, referring to the way our bodily experiences shape our perception of the world. In TeamLab's Planets, the audience's physical interaction with the environment is integral to their experience. The installation's design encourages visitors to engage physically with the space, walking through water, navigating mirrored rooms, and interacting with digital projections.

For example, a Twitter user @TierganVashir shared their experience, commenting, *"I should add the reason why everyone is barefoot in the parts of the exhibit involved walking on water, so please excuse any weird feet."* This tweet, accompanied by videos of the interactive water exhibit with flowers, highlights the sense of embodiment as the user physically interacts with the water and digital projections. The sensory engagement of walking barefoot through the water and the visual spectacle of flowers blooming around their feet enhances their perception of the installation as a dynamic and immersive environment.

Another user on Instagram shared an image of their feet surrounded by flowers, captioned, "花の中の小さな冒険。足元の花たちと一緒に歩く体験が忘れられない。" (Translation: "A small adventure among the flowers. The experience of walking with flowers at your feet is unforgettable."). This underscores the importance of tactile and visual sensations in shaping their experience, creating a sense of being enveloped by nature within the art installation. For instance, an Instagram user @a_s_kormos shared their experience at TeamLab Planets, stating, "My inner kid is higher than ever but how many mini me dance around ~ all alone in a surreal space and time in the pacific region. Hyper grateful." This highlights the sense of childlike wonder and embodiment as the user physically interacts with the space, enhancing their perception of the installation as a surreal and immersive environment. Another user, Kacey Musgraves, posted on Facebook, "Always unreal. teamLab Planets TOKYO." The accompanying photos depict her immersed in vibrant, glowing environments, suggesting a profound sensory engagement and a sense of being transported to another world. This aligns with phenomenological ideas of perception, where the sensory experience profoundly shapes one's understanding and emotional response to the art.

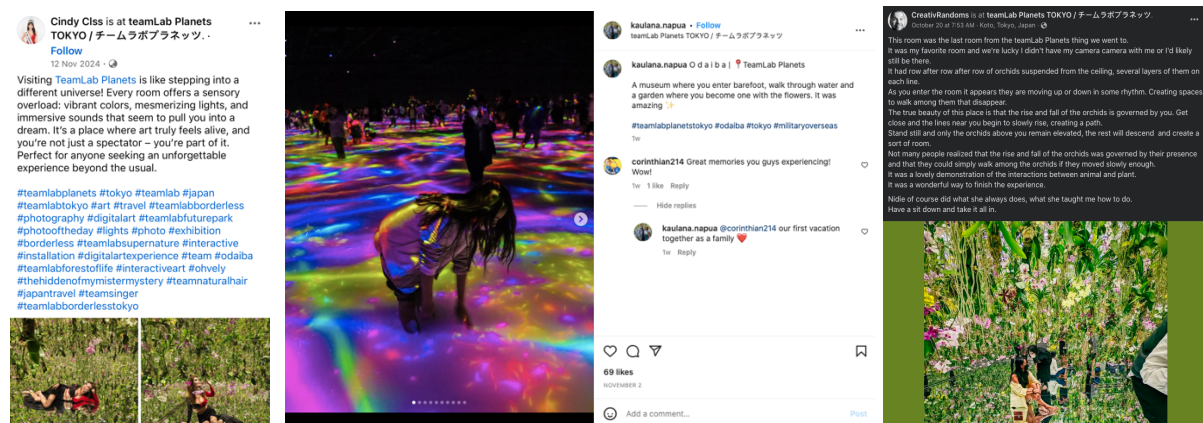


Figure 5: Screenshots of postings made by social media users on TeamLab: Planets. Source: Facebook & Instagram

The construction of meaning in these immersive installations can also be analyzed through Stuart Hall's reception theory, which emphasizes the role of audiences in interpreting media texts. According to Hall, audiences decode messages based on their own cultural backgrounds and personal experiences, leading to diverse interpretations. An example would be from a Facebook user highlighting how meaning is constructed at TeamLab Planets through sensory immersion and collective experience. The description—"stepping into a different universe" and "you're part of it"—emphasizes how the installation dissolves the boundary between observer and artwork, fostering active participation. The visuals of the visitor surrounded by nature-inspired projections reflect universal themes of connection to the natural world and the

cosmos, reinforcing the installation's ability to evoke shared emotional and spiritual resonance among participants.

Furthermore, a Facebook user @CreativRandoms described their experience in the orchid room at TeamLab Planets: *"It was my favorite room and we're lucky I didn't have my camera with me or I'd likely still be there. As you enter the room it appears they are moving up or down in some rhythm. Creating spaces to walk among them that disappear... It was a lovely demonstration of the interactions between animal and plant."* This detailed account shows how the user constructed meaning from the interactive elements of the installation, interpreting it as a demonstration of natural harmony. Another Instagram user, @kaulana.napua, posted a photo of themselves interacting in the *Drawing on the Water Surface Created by the Dance of Koi and People* installation, with the caption, *"A museum where you enter barefoot, walk through water and a garden where you become one with the flowers. It was amazing."* This account shows how the user interpreted the installation as a fantastical and magical experience, expressing how they felt like they became a part of nature when being within the installation.

3.1 Analysis of Olafur Eliasson's 'The Weather Project'



Figure 6: High culture ... the mirrored ceiling was 25m up. Photograph: Linda Nyland/The Guardian. (left)

Olafur Eliasson's artificial sun blazes in the Turbine Hall of Tate Modern, 2003. Photograph: Dan Chung/The Guardian. (right) Source: <https://www.theguardian.com/artanddesign/2018/oct/02/how-we-made-olafur-eliasson-the-weather-project>

In the other hand, 'The Weather Project' by Olafur Eliasson is an installation unlike TeamLab's digitally immersive installation. The artwork was displayed in the Turbine Hall of the Tate Modern in London from October 2003 to March 2004. It is a three-dimensional installation that consist of a semi-sphere built-up by hundreds of mono-frequency lights reflecting the mirrored ceiling which symbolizes the sun. The mono-frequency lights are lights that emit

narrow frequency in which that even though the sun illuminates the whole space with bright yellow, other colours other than yellow and black become invisible. In addition, not only does the mirrored ceiling reflect the semi-spheric “sun” into a whole circle, but it also reflects the audience viewing the artwork from below. The space is accompanied with an artificial mist surrounding the audience as they enter. According to various images and videos online, audience are seen interacting with the work by lying and sitting down on the floor while admiring the entirety of the artwork from the view of the mirrored ceiling. The bright colour of the sun emphasizes the dark room, producing a monochromatic colour palette throughout the whole room creates a sense of unity within the artwork such that it focuses on one colour scheme. Furthermore, the proportion of the installation also creates unity as the mirrored ceiling is producing a symmetrical image from the floor. This creates a balanced environment for audience who are entering the space and viewing the artwork from a distance.

Unlike TeamLab, Eliasson's 'The Weather Project' promotes a more relaxed atmosphere in which the audience is seen staying in one place and enjoying the artwork at a steady pace. The minimal movement within the entirety of the artwork creates a connection between the installation and the audience. Hence, audiences feel as if they are a part of the artwork as they look up toward the mirrored ceiling. Similar to TeamLab, Eliasson also uses nature as a main component in his artworks. Julia Starck (2009) highlights the importance of individual's experience of time and space towards the main goal of 'The Weather Project'. Moreover, she implies use of natural phenomenon as a concept within the museum space has allowed viewers to experience his or her own sense of time and space in the present moment.

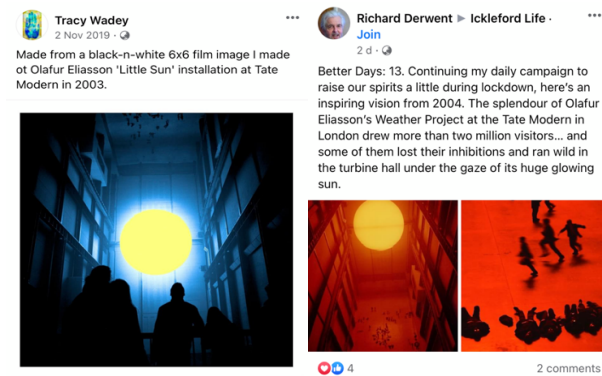
According to a journal by Artlead, the vast majority of us choose to accept the facts of the construction and let the beauty of what can only be called an illusion move us. We behave in this manner because Eliasson has successfully hinted at a reality that is far more important than the specifics of the structure, foil, and lamps. When we create and manage something that we know is ultimately out of our hands forever, we get to see that detachment and reclaim it. As Merleau-Ponty describes, movement is crucial to understanding how we live in the world where body is engaged with the possibilities that its surroundings present it with. Thus, the body is emphasized as a vital medium for our embodiment in the world. Therefore, Eliasson's work has provided the sense of unity through collective immersion in a way that audiences experience of 'The Weather Project' has not only revealed the paths of our own experience, but also other people's experiences intersecting with each other. As audiences are driven to exist inside the work and see other audiences collectively existing within the space together, they are transported into a reality that is constructed through the artist's view of the world. Moreover, The Weather Project highlights the exploration of human experience with weather. According to Coco Jiang, Eliasson aims to convey not only the vastness of the sun and sky as they exist over civilisation, but also the strength of the natural world and how fundamentally related it is to humankind. In addition, an art review commented: “The scale is so excessive, it is hard to experience Eliasson's artwork as art - it is more like nature itself, and we, down below, make the art.” This implies that the audience's presence within the artwork is understood to be the creation of the meaning behind the artwork itself through the distribution of the

artwork. Thus, this highlights the core element of this research as audience are considered as the main subject within new media of interactive installation.

In contrast to TeamLab, which encourages viewers to use their bodily senses to experience their surroundings as they would in their daily life to be able to relate it to the knowledge they have collected throughout their lifetime, The Weather Project focuses more on how people embody themselves in the world at that particular moment because every movement point such as the mist building up inside the room, leads to the audience's reflection above the ceiling. An art review describes Eliasson's The Weather Project as their "[...] first encounters with the way art can influence viewers' behaviour, so that they become active participants."

Eliasson's immersive installations is known for "replicating climate and atmospheric conditions" in a way that he uses materials that can be found through everyday use, such as water and light (Phaidon, 2000). This highlights that the connection between nature and humankind is an important concept within Eliasson's installation. Although it is possible to regulate the climate within an urban setting, the weather, in Eliasson's opinion, functions as "nature" because it is unpredictable and beyond human control. Olafur Eliasson invites viewers to reflect on his understanding and perception of the surrounding physical environment by fusing "natural" phenomena into carefully landscaped environments, such as city streets or art galleries. According to Eliasson, through the production of The Weather Project, he had taken account of the setting of the distribution of his artwork such that he acknowledges that the museum can also dictate how the audience views the artwork, in a way that they might "unquestioningly accept the content of a televised weather forecast".

In The Weather Project, Olafur Eliasson creates an environment where the audience's sensory experiences are heightened through the simulation of natural phenomena. The installation's design encouraged physical engagement, with many visitors lying on the floor to observe the mirrored ceiling reflecting the sun and the crowd below. This collective participation transformed the space into a communal experience, blurring the lines between observer and participant.



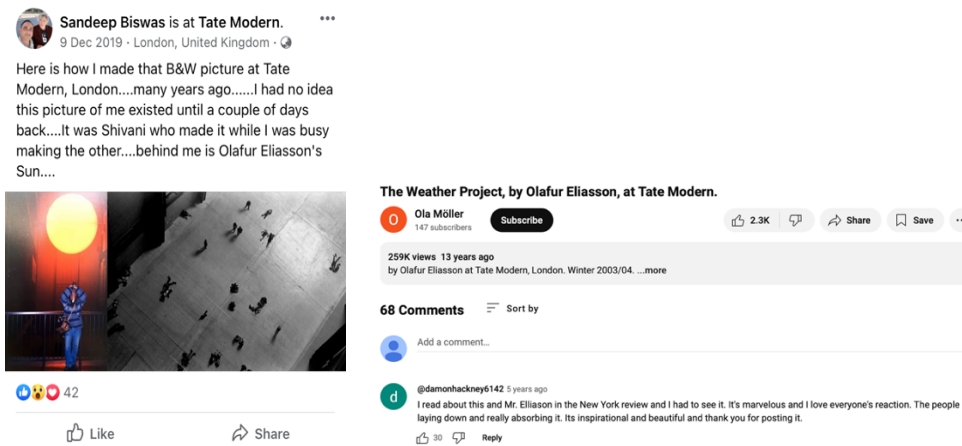


Figure 7: Screenshots of postings made by social media users on The Weather Project.
Source: Facebook & Youtube

In a comment from a viewer on YouTube illustrates the profound embodiment and perception central to the immersive experience. The viewer highlights how audience members "lay down and really absorb" the artwork, a response that reflects the physical and emotional engagement encouraged by the installation. This act of lying down symbolizes a shift from passive observation to active, embodied participation, enabling viewers to fully immerse themselves in the sensory environment Eliasson creates. The installation invites a deep connection between the viewer and the artwork, where the boundaries between self and art blur. This participatory engagement is a key aspect of embodiment in immersive installations, where perception extends beyond the visual to encompass the physical presence of the viewer in the space. The viewer's emotional response, describing the experience as "marvelous" and "inspirational," reflects the powerful aesthetic and emotional impact of the installation, underscoring how collective immersion fosters shared perception and communal experience.

Moreover, Sandeep Biswas shared a post about how he created a black-and-white picture at Tate Modern, highlighting the significance of the installation in the background. He states, "Here is how I made that B&W picture at Tate Modern, London...behind me is Olafur Eliasson's Sun." This post, along with the image of people interacting with the installation, underscores the physical and visual engagement that The Weather Project elicits. The immersive environment, with its overwhelming sun and atmospheric effects, profoundly shapes the viewer's sensory perception, creating a memorable and impactful experience. Another user, Richard Derwent, shared his reflections on The Weather Project during the lockdown, stating, "Better Days 13: Continuing my daily campaign to raise our spirits a little during lockdown, here's an inspiring vision from 2004. The splendour of Olafur Eliasson's Weather Project at the Tate Modern in London drew more than two million visitors, and some of them lost their inhibitions and ran wild in the turbine hall under the gaze of its huge glowing sun." This comment emphasizes the installation's ability to evoke a sense of awe and freedom,

highlighting how the sensory and embodied experience of the installation can lead to a powerful emotional and psychological impact. The construction of meaning in these immersive installations can also be analyzed through Stuart Hall's reception theory, which emphasizes the role of audiences in interpreting media texts. According to Hall, audiences decode messages based on their own cultural backgrounds and personal experiences, leading to diverse interpretations. Richard Derwent's reflection on the installation suggests that it served as a source of inspiration and hope during a challenging time, illustrating how the audience's personal context (in this case, the lockdown) influenced their interpretation of the artwork. He perceives the installation as a symbol of better days and the human capacity to find joy and freedom even in difficult circumstances.

Sandeep Biswas's post about creating the black-and-white picture also reveals a personal layer of meaning. His surprise at discovering the photo years later and the mention of his friend Shivani making the picture while he was busy shows a shared experience that adds a personal narrative to the installation. The Weather Project thus becomes a backdrop for personal memories and interactions, highlighting how individual and social experiences contribute to the construction of meaning. In the other hand, Tracy Worley's focus on the visual spectacle of the installation highlights a different aspect of meaning construction. By capturing and sharing an image that blocks the sun, she emphasizes the interplay of light and shadow, possibly interpreting the installation as a meditation on the relationship between human intervention and natural phenomena. This interpretation underscores how the audience can derive diverse meanings from the same artwork based on their unique perspectives and experiences.

Simulating Cosmic Sublime: Immersive Light As Spiritual Experience In Teamlab's Planets And Eliason's Weather Project

The emotional impact of these immersive light experiences can be profound, evoking awe, wonder, and introspection. The aesthetic beauty of the cosmic simulations enhances the spiritual resonance, creating an environment that invites contemplation. Furthermore, the incorporation of sound, touch (in the case of Planets), and visual elements contributes to a multisensory approach to spirituality. The immersive light becomes a vehicle for a holistic spiritual encounter, engaging participants on multiple sensory levels. In essence, the simulation of the cosmic sublime through immersive light in TeamLab's Planets and Eliasson's Weather Project transcends the aesthetic realm, delving into the spiritual. These installations invite participants to experience a form of contemporary spirituality, where technology and art converge to evoke a sense of wonder, connectedness, and reverence for the cosmos.

The theory of phenomenology, as developed by philosophers like Edmund Husserl and later expanded upon by Maurice Merleau-Ponty, focuses on the study of human experience and consciousness. Applying phenomenological principles to the immersive light experiences in

TeamLab's Planets and Olafur Eliasson's Weather Project enriches our understanding of the spiritual dimensions involved: Embodiment and Engagement, Temporal and Spatial Experience, Intersubjectivity and Shared Experience, Consciousness and Reflection, Noetic and Noematic Aspects, Lived Experience and Horizon, and Technology and Phenomenological Consciousness.

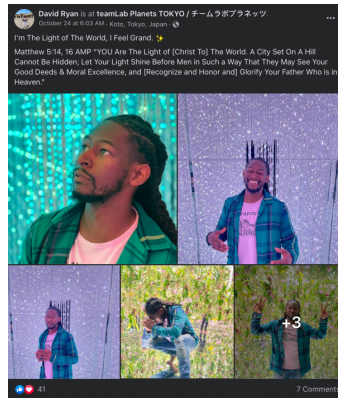


Figure 8: Screenshots of postings made by social media users on TeamLab: Planet's light installation. Source: Facebook

A Facebook user relates his experience towards his religious beliefs, giving an insight on how the installation made him feel in a deeper level. According to a research on spiritual awakening, this experience is a direct connection, communion, or nondual merger with an infinite and global awareness, the divine or "God," in felt oneness, is frequently how these profoundly embodied, noetic experiences are understood. This can be understood through Merleau-Ponty's explanation of body schema, which is a tacit knowledge of the body's situation in space (Ponty, 1945). David Ryan's responses add another layer of understanding to this analysis. Ryan's post on TeamLab's Planets reflects his profound engagement with the artwork: "Through all the rooms I was taken on a journey beyond myself, into a space where time felt different, and my sense of being was expanded." His description underscores the transformative potential of the installation, as it transports viewers beyond their ordinary experiences and into a heightened state of awareness. Moreover, Instagram user *a_s_kormos* shared their experience at TeamLab: Planets, expressing a childlike joy and a sense of transcendence: "My inner kid is higher than ever but how many mini me dance around ~ all alone in a surreal space and time in the pacific region. Hyper grateful." This highlights the immersive and transformative nature of TeamLab's Planets, as the user feels transported to a different reality. The phrase "surreal space and time" suggests an altered state of consciousness, aligning with phenomenological concepts of embodiment and perception.

Similarly, Kacey Musgraves described her visit as "Always unreal." The use of the term "unreal" emphasizes the otherworldly and immersive qualities of the installation, suggesting a break from the ordinary and evoking a sense of wonder and awe. This response indicates that

the installation successfully creates a space where visitors can lose themselves in the experience, contributing to the overall sense of the cosmic sublime. Another visitor, CreativRandoms, shared a more detailed reflection on their favourite part of the installation: "It was my favourite room and we're lucky I didn't have my camera with me or I'd likely still be there." This visitor's deep connection to a specific part of the installation underscores its impact on their perception of time and space. The reluctance to leave the room signifies the powerful hold the immersive environment has on the audience, further reinforcing the installation's capacity to evoke a profound emotional and spiritual response.

Turning to Olafur Eliasson's Weather Project, social media posts reflect on the enduring impact of the installation. Tracy Worley and Richard Derwent's reflections highlight its role in uplifting spirits, particularly during challenging times like the COVID-19 lockdown. Tracy Worley reminisced, "Better Days 15: Continuing my daily campaign to raise our spirits a little during lockdown, here's an inspiring vision from 2004." Meanwhile, Richard Derwent noted, "The splendour of Olafur Eliasson's Weather Project at the Tate Modern in London drew more than two million visitors... under the gaze of its huge glowing sun." These posts underscore the installation's large-scale and immersive nature, creating a shared experience that fosters a sense of community and collective awe. Sandeep Biswas shared a personal connection to the artwork, reflecting on their creative process while interacting with the installation: "Here is how I made that B&W picture at Tate Modern, London... behind me is Olafur Eliasson's Sun." This response indicates that the Weather Project not only provides a visual spectacle but also serves as a backdrop for personal expression and artistic exploration. The sun, a central element in the installation, becomes a focal point for both communal experience and individual reflection.

David Ryan's commentary on the Weather Project echoes these sentiments. He noted, "The sun at the Tate Modern felt like a beacon of hope and renewal, a place where strangers came together to bask in its light and warmth." This response highlights the installation's ability to foster a collective spiritual experience, where the physical presence of light evokes deep emotional and psychological responses.

From Personal to Collective: Immersive Experiences Across ArtScience Museum, Dubai Expo 2020, and Infinity des Lumières



Figure 9: Images from the Hungary Pavilion at Dubai Expo 2020.

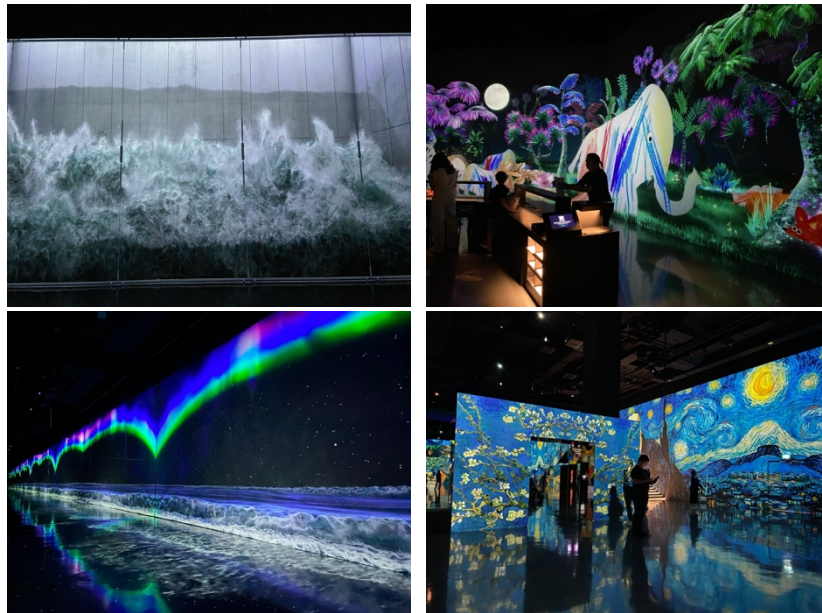


Figure 10: Images from the Infinite Des Lumieres exhibition in Dubai.



Figure 11: Images from ArtScience Museum in Singapore.

Exhibitions such as those at the ArtScience Museum in Singapore, *Infinity des Lumières* in Dubai, and Dubai Expo 2020 present paradigms of collective immersion that go beyond traditional modes of art viewing. The concept of collective immersion aligns with the theoretical framework outlined in phenomenological studies of art by scholars such as Merleau-Ponty (1945), who emphasized embodied perception as a key to understanding human experiences in space. These installations are designed not simply as objects to observe, but as immersive environments where the visitor actively participates in creating meaning. For example, at Expo 2020, the underwater-themed installation I experienced was characterized by its multi-sensory qualities. The vivid projections of marine life and the enveloping soundscape invited viewers to physically and emotionally “dive” into the space. This mirrors the ideas from Kacey Musgraves’ descriptions of art that evoke spiritual contemplation and awe in the viewer. The experience created a shift in awareness, drawing attention to the space around me while also prompting deep introspection, evoking a sense of wonder similar to Kacey Musgraves’ meditative descriptions of awe. This resonated with Heidegger’s philosophy of “being-in-the-world,” (Heidegger, 1927) where the environment transforms the individual’s sense of existence. The immersive qualities of these spaces helped articulate a collective experience, one in which each viewer’s actions, however subtle, contributed to the atmosphere. The shared nature of the space, in combination with its physical design, invited collective participation. Visitors navigated the installations as a unified body, experiencing both individual moments of awe and the broader collective journey through the space. In this way, the installation became a shared experience, where time and space stretched beyond the immediate to encompass the collective journey.

These installations redefine the relationship between the artwork and its audience. The physicality of the space plays a crucial role in amplifying collective immersion. Large-scale projections and vast open spaces at Expo 2020 or *Infinity des Lumières* forced the audience to navigate shared spaces together, fostering a sense of communal discovery. When individuals interact with the projections, whether stepping into a display or observing the interplay of light, they become part of a living, breathing work of art, much like the communal experiences in

TeamLab's and Eliasson's work. In these environments, the collective nature is enhanced by the synchrony of light and sound, which creates a unified rhythm among participants. The notion of temporal synchronization within immersive spaces draws from theories of embodied cognition, as proposed by Clark and Chalmers (1998), where physical presence and interaction with environmental stimuli shape perception and group dynamics. This interplay of participation and synchronization parallels the effect observed in immersive installations by TeamLab and Eliasson, where the collective energy of the audience contributes to the aesthetic power of the work, further deepening the impact of the experience.

The immersive nature of these exhibitions also leads to an embodied form of participation, where the act of moving through space becomes integral to the artwork itself. The relationship between physicality and art experiences reflects the phenomenological approach of Merleau-Ponty (1945) which highlights how bodily movement engages with the environment and shapes perception. In *Infinity des Lumières*, the movement of visitors interacting with projections, whether stepping closer to a shimmering light or spinning to view a 360-degree immersive environment, encouraged an empathic connection to both the installation and other viewers. This embodied interaction underscored a universal human response: empathy arises when we physically experience and reflect upon the shared experience with others in real time. Time plays a vital role in collective immersion. The concept of temporal dislocation in immersive art installations draws on Bergson's theory of time which contrasts physical time (measured by clocks) with lived time, or "la durée," which is subjective and malleable (Bergson, 1911). At installations like the ArtScience Museum's "Future World," or Expo 2020's dome experiences, sequences of projections and real-time shifts in atmosphere create shared moments of anticipation and surprise. The temporal flow of the installations becomes a synchronizing force, where visitors are united not only in space but also in time.

Shared experiences of wonder and awe contribute to collective memory, which becomes part of a larger, social narrative. This idea of collective memory is inspired by Halbwachs (1992), who suggests that memory is formed not only individually but through social interactions and shared experiences. Through the experience of these installations, the audience collectively witnesses the transition from one moment to the next, contributing to an evolving sense of the present. As visitors process these changes, they begin to form a collective narrative that transcends the fleeting moments of individual experience, creating a shared temporal experience. This mirrors the communal aspect found in TeamLab's and Eliasson's works, where the audience's collective presence allows for the formation of a communal narrative that extends beyond the physical space into shared memory.

Experiencing the Cosmic Sublime: Personal Reflections from ArtScience Museum, Dubai Expo 2020, and Infinity des Lumières

The cosmic sublime is often understood as a transformative encounter with the vast, mysterious, and transcendent. This notion of the sublime is rooted in the Romantic tradition as

explored by Edmund Burke (1757) and Immanuel Kant (1790), who considered the sublime as an overwhelming experience that transcends ordinary comprehension. Immersive installations such as those at Infinity des Lumières and Expo 2020 evoke this sublime sense of awe, transporting viewers into a realm that feels simultaneously boundless and intimately connected. Through my experience, I observed how these works employed light, sound, and scale to emulate cosmic phenomena, allowing viewers to feel both small in the face of infinity yet deeply connected to others sharing the experience. The use of projection technology, with its ethereal and expansive quality, reimagines the traditional experience of the cosmos, offering a new language for understanding both the sublime and our place in the universe. For instance, the swirling galaxies and endless cosmic vistas in Infinity des Lumières collapsed the distance between the viewer and the cosmos, evoking a sense of unity that transcended the individual experience. At Expo 2020, the dome installation's depiction of the universe invoked similar feelings of insignificance against the vast backdrop of celestial bodies while simultaneously uniting viewers in awe.

Temporal dislocation is a key characteristic of the cosmic sublime, inviting viewers to step outside the constraints of linear time. At both Expo 2020 and Infinity des Lumières, projections of cosmic phenomena conveyed an ongoing, eternal motion, while the slow, cyclical transitions of light blurred the viewer's perception of time, inducing a liminal experience. In these installations, the continuous flow of cosmic imagery and rhythmic lighting invited an encounter with the infinite, much as TeamLab and Eliasson use fluid temporal elements to create spaces where time becomes malleable, allowing for introspection on the eternal. Similarly, at Infinity des Lumières, the dynamic nature of the digital waves created an experience of repetition and recurrence that invoked the cyclical nature of time. The constant motion of the waves dissolved any notion of linear time, contributing to the feeling of temporal dislocation. This cyclical approach allows visitors to experience time as a fluid, endless dimension, further emphasizing the connection between the cosmic sublime and the transcendence of temporal boundaries. The cosmic sublime is not merely an aesthetic experience; it carries a profound ethical dimension. My experiences at these installations often provoked reflections on humanity's relationship with the environment. At Infinity des Lumières, the crashing waves were both awe-inspiring and unsettling, evoking admiration for nature's power and concern for its fragility. This duality mirrors TeamLab's environmental themes, where digital ecosystems highlight the interconnectedness of all life forms, and Eliasson's advocacy for sustainability through art.

At the Dubai Expo 2020, the aquatic and cosmic imagery underscored the interconnectedness of humanity and the planet. The installations invited viewers to contemplate their role within this interconnected web, aligning with Eliasson's call for environmental stewardship. These experiences reinforce the argument that the cosmic sublime extends beyond aesthetic appreciation to provoke moral and ecological awareness. By inspiring a sense of responsibility, immersive art transforms awe into agency, encouraging viewers to act in service of the greater good. These personal experiences contribute to a broader understanding of how immersive installations engage audiences. By incorporating themes of temporal dislocation,

embodiment, community, and environmental responsibility, they extend the framework established by TeamLab and Eliasson. My encounters demonstrate that similar installations worldwide employ comparable strategies to evoke the cosmic sublime, offering new perspectives on the self, the collective, and the infinite. Moreover, these experiences highlight the universality of the immersive art phenomenon. Whether in Dubai, Singapore, or beyond, these installations create spaces where individuals can connect with the sublime, both personally and collectively. They underscore the transformative potential of immersive art, not only as a medium for aesthetic exploration but also as a catalyst for personal and social change.

In conclusion, the cosmic sublime, as experienced through immersive art installations, is a multifaceted phenomenon that engages the individual and the collective, the physical and the infinite. My personal experiences at Dubai Expo 2020, Infinity des Lumières, and the ArtScience Museum illustrate how these installations evoke awe, reflection, and connection through innovative strategies. These encounters validate and extend the themes explored in the works of TeamLab and Olafur Eliasson, demonstrating the universal appeal and transformative potential of immersive art. By fostering temporal dislocation, engaging the body, creating communal experiences, and inspiring a sense of responsibility, these installations offer a pathway to understanding the sublime in its most profound sense. They remind us of our place within the cosmos and our interconnectedness with each other and the planet. As immersive art continues to evolve, it holds the promise of shaping not only how we perceive the world but also how we choose to engage with it, both individually and collectively.

Reflection

This research has examined the phenomenological impact of immersive art installations on audience experience, focusing on how works such as TeamLab's *Planets*, Olafur Eliasson's *The Weather Project*, and other immersive exhibitions engage viewers as active participants in transformative, multisensory environments. These installations foster collective immersion by creating shared spaces of wonder, where boundaries between self and others dissolve through light, sound, and spatial interaction. The concept of the cosmic sublime emerged as central to these experiences, as immersive environments simulate natural and cosmic phenomena to evoke feelings of awe, reflection, and existential awareness. Light, space, and time are used not only to captivate the senses but to open pathways to spiritual and ecological contemplation. These experiences encourage audiences to consider their place within the universe, merging the tangible with the transcendent. Personal encounters with other immersive exhibitions, such as those at Expo 2020 Dubai and Infinity des Lumières, reinforced the thematic threads of collective experience, temporal dislocation, and embodied engagement. The physical interaction within these installations intensifies the experience of the sublime, transforming viewers into co-creators of meaning and participants in a shared emotional and sensory journey.

Moreover, these environments highlight the potential of immersive art to foster communal awareness and ecological consciousness. By inviting both awe and reflection, immersive art creates temporary communities united through shared emotional responses and a deepened sense of responsibility toward the natural world. Ultimately, immersive art installations serve not merely as visual spectacles but as affective environments that connect the personal with the collective and the sensory with the spiritual. They offer a transformative space in which audiences can engage more deeply with themselves, with others, and with the larger cosmos.

References

- Artspace. (2018). 'Without the viewer there is nothing': Olafur Eliasson on positioning the audience and the notion of reality.
https://www.artspace.com/magazine/interviews_features/without-the-viewer-there-is-nothing-olafur-eliasson-on-positioning-the-audience-and-the-notion-of
- Bergson, H. (1911). *Creative evolution*. Henry Holt & Co.
- Bishop, C. (2005). *Installation art: A critical history*. Tate Publishing.
- Burke, E. (1757). *A philosophical enquiry into the origin of our ideas of the sublime and beautiful*. R. and J. Dodsley.
- Cercle Magazine. (n.d.). *The strange journey of Olafur Eliasson*.
<https://www.cerclemagazine.com/en/magazine/articles-magazine/the-strange-journey-of-olafur-eliasson/>
- Clark, A., & Chalmers, D. (1998). The extended mind. *Analysis*, 58(1), 7–19.
- Durham, M. G., & Kellner, D. M. (Eds.). (2006). *Media and cultural studies: Keywords*. Blackwell Publishing.
- Hall, S. (2006). Encoding/decoding. In M. G. Durham & D. M. Kellner (Eds.), *Media and cultural studies: Keywords* (pp. 168–178). Blackwell Publishing.
- Eliasson, O. (2003). The Weather Project. Tate Modern. <https://www.tate.org.uk/press/press-releases/unilever-series-olafur-eliasson-weather-project>
- Foster, H. (2003). Chat rooms. *London Review of Books*, 25(6). <https://www.lrb.co.uk/the-paper/v25/n06/hal-foster/chat-rooms>

Frontiers in Psychology. (2021). *The Weather Project: Exploring awe and affect in immersive environments*.

<https://www.frontiersin.org/articles/10.3389/fpsyg.2021.720579/full#B69>

Gallatin NYU. (n.d.). *Olafur Eliasson's The Weather Project*.

<https://confluence.gallatin.nyu.edu/context/interdisciplinary-seminar/olafur-eliassons-the-weather-project>

Grau, O. (2004). *Virtual art: From illusion to immersion*. MIT Press.

Halbwachs, M. (1992). *The collective memory*. Harper & Row.

Haslem, W. (2021). TeamLab Borderless: Bridging borders in simulated ecologies. *The Journal of Media Art Study and Theory*, 1(2), 258–259.

Heidegger, M. (1927). *Being and time* (J. Macquarrie & E. Robinson, Trans.). Harper & Row.

Heiser, J. (2003). Weather report: Olafur Eliasson at Tate Modern. *Frieze*, 77.

<https://www.frieze.com/article/weather-report>

Hua, M. (2021). Borderlessness: TeamLab, immersive experience, and new media installation art. *OCAD University*, 6–7.

Jones, J. (2003, October 30). *Olafur Eliasson's Weather Project: Art review*. *The Guardian*.

<https://www.theguardian.com/culture/2003/oct/30/1>

Kant, I. (1790). *Critique of judgment*. Cambridge University Press.

Lightman, J. (n.d.). *Art review: Olafur Eliasson – In Real Life*. Skylightrain.

<http://www.skylightrain.com/art-review-olafur-eliasson-in-real-life/>

Liu, C. (2019). TeamLab research. Sotheby's Institute of Art Student Scholarship and Creative Work, 9.

Lys Technologies. (n.d.). *The Weather Project: Sensing and observing*.

<https://lystechnologies.io/reflections/the-weather-project-sensing-and-observing/>

Marchessault, J. (n.d.). *The Weather Project* [PDF]. Visible City. York University.

http://www.yorku.ca/jmarches/visiblecity/Weather_Project.pdf

Mellby, J. L. (2007). Your house by Olafur Eliasson and the hole in modern visual narratives (pp. 151–152). Princeton University Library.

<https://graphicarts.princeton.edu/2012/12/21/your-house-by-olafur-eliasson/>

Merleau-Ponty, M. (1945/2012). *Phenomenology of perception* (D. A. Landes, Ed. & Trans.). Routledge.

Mizia, M. (2014). Architecture as an art of understanding. *The Polish Review*, 59(4), 88. <https://doi.org/10.2307/24756783>

Molesworth, C. (2008). Olafur Eliasson and the charge of time. *Salmagundi*, 160–161.

Phaidon Editors. (2000). *The twenty first century art book* (p. 76). Phaidon Press.

Rose, Z. T. (2021). Transformed Asian Art Museum unveils new pavilion with TeamLab: Continuity. *Asian Art Museum*, 4.

Sandquist, G. (2000). Olafur Eliasson. *Afterall: A Journal of Art, Context and Enquiry*, 106–110. <http://www.jstor.org/stable/20711409>

Spiegl, A. (2000). Olafur Eliasson: Non-trueness as the nature of theatre. *Afterall: A Journal of Art, Context and Enquiry*, 97–105. <http://www.jstor.org/stable/20711408>

Starck, J. (2009, August 4). Bringing the weather inside: Olafur Eliasson's The Weather Project. *University of Toronto Art Journal*, 2. <https://artlead.net/journal/modern-classics-olafur-eliasson-the-weather-project-2003>

Tate. (2003). *The Unilever Series: Olafur Eliasson – The Weather Project*. Tate Modern. <https://www.tate.org.uk/press/press-releases/unilever-series-olafur-eliasson-weather-project>

TeamLab Collective. (n.d.). *TeamLab art collective interview: When art meets technology*. The Archive Magazine. <https://thearchivemagazine.com/teamlab-art-collective-interview-when-art-meets-technology/>

TimeOut Tokyo. (2022, September 1). *Not closing soon: TeamLab Planets in Tokyo will now be open until end 2023*. <https://www.timeout.com/tokyo/news/not-closing-soon-teamlab-planets-in-tokyo-will-now-be-open-until-end-2023-090122>

Tokyo Cheapo. (n.d.). *Everything you need to know about TeamLab Planets*. <https://tokyocheapo.com/entertainment/museums-and-exhibitions/everything-you-need-to-know-about-teamlab-planets/>

Xu, A. (2020). Innovations in art through the lens of business model analysis and the dynamics of creative industries: A case study of TeamLab. *Stanford University Innovations*, 42.